

What is claimed is:

1 1. An accommodating intra-ocular lens apparatus capable
2 of being disposed directly within the natural capsular bag or
3 sulcus of the eye, without the use of any type of artificial
4 bag, comprising:

5 a) a lens for movement by gravity between respective
6 posterior and anterior positions within said eye; and

7 b) a plurality of haptics, each with a distal and a
8 proximal end, each articulately connected to said lens at
9 said distal end and disposed within and connected to said
10 natural capsular bag or sulcus at said proximal end.

1 2. The intra-ocular lens in accordance with claim 1,
2 wherein said plurality of haptics comprises at least two
3 haptics selected from a group of haptics consisting of: looped
4 haptics or plate haptics.

1 3. The intra-ocular lens in accordance with claim 2,
2 wherein said lens is held in place by means of a mechanical
3 haptic system disposed in said natural capsular bag or sulcus.

1 4. The intra-ocular lens in accordance with claim 3,
2 wherein each of said plurality of haptics is connected to said
3 lens by hinged means.

1 5. The intra-ocular lens in accordance with claim 4,
2 wherein each of said plurality of haptics is connected to said
3 lens by means of a haptic connection selected from a group
4 consisting of: a ball-socket, a pin axle or a hinged plate
5 haptic connection.

1 6. The intra-ocular lens in accordance with claim 5,
2 wherein said haptics' lengths are longer than the lengths
3 available for them in the natural capsular bag or sulcus, and
4 are thus compressed, such that said haptics retain said lens
5 in an equilibrium posterior position or an equilibrium
6 anterior position, regardless of head inclination, until
7 sufficient applied forces move said lens into the alternative
8 equilibrium position.

1 7. The intra-ocular lens in accordance with claim 6,
2 wherein each of said plurality of haptics is connected to said
3 lens by hinged means with limits to the posterior and anterior
4 movement of said lens.

1 8. The intra-ocular lens in accordance with claim 7, wherein
2 said lens comprises means for movement of approximately 1 mm
3 between said posterior and said anterior positions.

1 9. The intra-ocular lens in accordance with claim 8,
2 wherein said plurality of haptics comprises three haptics
3 spaced 120° apart from one another.

1 10. The intra-ocular lens in accordance with claim 8,
2 further comprising a lens button attached to or embedded in
3 said lens, said lens button having a specific gravity greater
4 than the specific gravity of the aqueous humor of said eye.

1 11. The intra-ocular lens in accordance with claim 10,
2 further comprising said lens button being an elongated button
3 facilitating folding and insertion through a small opening in
4 the eye.

1 12. The intra-ocular lens in accordance with claim 8,
2 wherein said lens has a specific gravity greater than the
3 aqueous humor of said eye.

1 13. The intra-ocular lens in accordance with claim 9,
2 further comprising a lens button attached to or embedded in
3 said lens, said lens button having a specific gravity greater
4 than the specific gravity of the aqueous humor of said eye.

1 14. The intra-ocular lens in accordance with claim 13,
2 further comprising said lens button being an elongated button
3 facilitating folding and insertion through a small opening in
4 the eye.

1 15. The intra-ocular lens in accordance with claim 9,
2 wherein said lens has a specific gravity greater than the
3 aqueous humor of said eye.

1 16. The intra-ocular lens in accordance with claim 8,
2 wherein said plurality of haptics comprises two horizontal
3 haptics and possibly an inferior haptic.

1 17. The intra-ocular lens in accordance with claim 16,
2 further comprising a lens button attached to or embedded in
3 said lens, said lens button having a specific gravity greater
4 than the specific gravity of the aqueous humor of said eye.

1 18. The intra-ocular lens in accordance with claim 17,
2 further comprising said lens button being an elongated button
3 facilitating folding and insertion through a small opening in
4 the eye.

1 19. The intra-ocular lens in accordance with claim 16,
2 wherein said lens has a specific gravity greater than the
3 aqueous humor of said eye.